

Human Experiments: A Chronology of Human Research

by Vera Hassner Sharav

6th century B.C.: Meat and vegetable experiment on young Jewish prisoners in Book of Daniel.

5th century B.C: "Primum non nocere" ("First do no harm"), medical ethics standard attributed to Hippocrates. This Oath became obligatory for physicians prior to practicing medicine in the 4th century AD

1st century B.C. Cleopatra devised an experiment to test the accuracy of the theory that it takes 40 days to fashion a male fetus fully and 80 days to fashion a female fetus. When her handmaids were sentenced to death under government order, Cleopatra had them impregnated and subjected them to subsequent operations to open their wombs at specific times of gestation.

[\[http://www.jlaw.com/Articles/NaziMedExNotes.html#1\]](http://www.jlaw.com/Articles/NaziMedExNotes.html#1)

12th century: Rabbi and physician Maimonides' Prayer: "May I never see in the patient anything but a fellow creature in pain."

1796 Edward Jenner injects healthy eight-year-old James Phillips first with cowpox then three months later with smallpox and is hailed as discoverer of smallpox vaccine.

1845-1849: J. Marion Sims, "the father of gynecology" performed multiple experimental surgeries on enslaved African women without the benefit of anesthesia. After suffering unimaginable pain, many lost their lives to infection. One woman was made to endure 34 experimental operations for a prolapsed uterus. http://www.coax.net/people/lwf/jm_sims.htm

1865: French physiologist Claude Bernard publishes "Introduction to the Study of Human Experimentation," advising: "Never perform an experiment which might be harmful to the patient even though highly advantageous to science or the health of others."

1896: Dr. Arthur Wentworth performed spinal taps on 29 children at Children's Hospital, Boston, to determine if the procedure was harmful. Dr. John Roberts of Philadelphia, noting the non-therapeutic indication, labeled Wentworth's procedures "human vivisection."

1897: Italian bacteriologist Sanarelli injects five subjects with bacillus searching for a causative agent for yellow fever.

1900: Walter Reed injects 22 Spanish immigrant workers in Cuba with the agent for yellow fever paying them \$100 if they survive and \$200 if they contract the disease.

1900: Berlin Code of Ethics. Royal Prussian Minister of Religion, Education, and Medical Affairs guaranteed that: "all medical interventions for other than diagnostic, healing, and immunization purposes, regardless of other legal or moral authorization are excluded under all circumstances if (1) the human subject is a minor or not competent due to other reasons; (2) the human subject has not given his unambiguous consent; (3) the consent is not preceded by a proper explanation of the possible negative consequences of the intervention." <http://www.geocities.com/artnscience/00berlincode.pdf>

1906: Dr. Richard Strong, a professor of tropical medicine at Harvard, experiments with cholera on prisoners in the Philippines killing thirteen.

1913: Pennsylvania House of Representatives recorded that 146 children had been inoculated with syphilis, "through the courtesy of the various hospitals" and that 15 children in St. Vincent's House in Philadelphia had had their eyes tested with tuberculin. Several of these children became permanently blind. The experimenters were not punished.

1915: A doctor in Mississippi, working for the U.S. Public Health Office produces Pellagra in twelve Mississippi inmates in an attempt to discover a cure for the disease

1919-1922: Testicular transplant experiments on five hundred prisoners at San Quentin.

1927: Carrie Buck of Charlottesville is legally sterilized against her will at the Virginia Colony Home for the Mentally Infirm. Carrie Buck was the mentally normal daughter of a mentally retarded mother, but under the Virginia law, she was declared potentially capable of having a "less than normal child." By the 1930s, seventeen states in the U.S. have laws permitting forced sterilization

The settlement of *Poe v. Lynchburg Training School and Hospital* (same institution, different name) in 1981 brought to an end the Virginia law. It is estimated that as many as 10,000 perfectly normal women were forcibly sterilized for "legal" reasons including alcoholism, prostitution, and criminal behavior in general.

1931: Lubeck, Germany, 75 children die in from pediatrician's experiment with tuberculosis vaccine.

1931: Germany adopts "Regulation on New Therapy and Experimentation" requiring all human experiments to be preceded by animal experiments. This law remained in effect during the Nazi regime.

1931: Dr. Cornelius Rhoads, a pathologist, conducted a cancer experiment in Puerto Rico under the auspices of the Rockefeller Institute for Medical Investigations. Dr. Rhoads has been accused of purposely infecting his Puerto Rican subjects with cancer cells. Thirteen of the subjects died. A Puerto Rican physician uncovered the experiment an investigation covered-up the facts. Despite Rhoads' hand written statements that the Puerto Rican population should be eradicated, Rhoads went on to establish U.S. Army Biological Warfare facilities in Maryland, Utah, and Panama, and was later named to the U.S. Atomic Energy Commission. Rhoads was also responsible for the radiation experiments on prisoners, hospital patients, and soldiers. The American Association for Cancer Research honored him by naming its exemplary scientist award the Cornelius Rhoads Award.

1932-1972: U.S. Public Health Service study in Tuskegee, Alabama of more than 400 black sharecroppers observed for the natural course of untreated syphilis.

1932: Japanese troops invade Manchuria. Dr. Shiro Ishii, a prominent physician and army officer begins preliminary germ warfare experiments.

1936: Japan's Wartime Human Biowarfare Experimentation Program.

1938: Japan establishes Unit 731 in Pingfan, 25 km. from Harbin. Unit 731, a biological-warfare unit disguised as a water-purification unit, is formed outside the city of Harbin.

1939: Third Reich orders births of all twins be registered with Public Health Offices for purpose of genetic research.

1939: Twenty-two children living at the Iowa Soldiers' Orphans' Home in Davenport were the subjects of the "[monster](#)" experiment that used psychological pressure to induce children who spoke normally to stutter. It was designed by one of the nation's most prominent speech pathologists, Dr. Wendell Johnson, to test his theory on the cause of stuttering.

1940: Poisonous gas experiments at Unit 731. One experiment conducted September 7-10, 1940, on 16 Chinese prisoners who were exposed to mustard gas in a simulated battle situation.

1940-1941: Unit 731 used aircraft to spread cotton and rice husks contaminated with the black plague at Changde and Ningbo, in central China. About 100 people died from the black plague in Ningbo as a result.

1940's: In a crash program to develop new drugs to fight Malaria during World War II, doctors in the Chicago area infected nearly 400 prisoners with the disease. Although the Chicago inmates were given general information that they were helping with the war effort, they were not informed about the nature of the experiment. Nazi doctors on trial at Nuremberg cited the Chicago studies as precedents to defend their own research aimed at aiding the German war effort.

1941: Sterilization experiments at Auschwitz.

1941-1945: Typhus experiments at Buchenwald and Natzweiler concentration camps.

1941: Dr. William C. Black inoculated a twelve month old baby with herpes. He was criticized by Francis Payton Rous, editor of the Journal of Experimental Medicine, who called it "an abuse of power, an infringement of the rights of an individual, and not excusable because the illness which followed had implications for science." Dr. Rous rejected outright the fact that the child had been "offered as a volunteer."

1942 –1945: Unit 731. Ishii begins "field tests" of germ warfare and vivisection experiments on thousands of Chinese soldiers and civilians. Chinese people who rebelled against the Japanese occupation were arrested and sent to Pingfan where they became human guinea pigs; there is evidence that some Russian prisoners were also victims of medical atrocities.

"I cut him open from the chest to the stomach and he screamed terribly and his face was all twisted in agony. He made this unimaginable sound, he was screaming so horribly. But then finally he stopped. This was all in a day's work for the surgeons, but it really left an impression on me because it was my first time."
NYT

These prisoners were called 'maruta' (literally 'logs') by the Japanese. After succumbing to induced diseases - including bubonic plague, cholera, anthrax - the prisoners were usually dissected while still alive, their bodies then cremated within the compound. Tens of thousands died. The atrocities were committed by some of Japan's most distinguished doctors recruited by Dr. Ishii.

1942: High altitude or low pressure experiments at Dachau concentration camp

1942: Harvard biochemist Edward Cohn injects sixty-four Massachusetts prisoners with beef blood in U.S. Navy-sponsored experiment.

1942: Japanese sprayed cholera, typhoid, plague, and dysentery pathogens in the Jinhua area of Zhejiang province (China). A large number of Japanese soldiers also fell victim to the sprayed diseases.

1942-1943: Bone regeneration and transplantation experiments on female prisoners at Ravensbrueck concentration camp.

1942-1943: Freezing experiments at Dachau concentration camp.

1943 Refrigeration experiment conducted on sixteen mentally disabled patients who were placed in refrigerated cabinets at 30 degree Fahrenheit, for 120 hours, at University of Cincinnati Hospital., "to study the effect of frigid temperature on mental disorders."

1942-1943: Coagulation experiments on Catholic priests at Dachau concentration camp.

1942-1944: U.S. Chemical Warfare Service conducts mustard gas experiments on thousands of servicemen.

1942-1945: Malaria experiments at Dachau concentration camp on more than twelve hundred prisoners.

1943: Epidemic jaundice experiments at Natzweiler concentration camp.

1943-1944: Phosphorus burn experiments at Buchenwald concentration camp.

1944: Manhattan Project injection of 4.7 micrograms of plutonium into soldiers at Oak Ridge.

1944: Seawater experiment on sixty Gypsies who were given only saltwater to drink at Dachau concentration camp.

1944-1946: University of Chicago Medical School professor Dr. Alf Alving conducts malaria experiments on more than 400 Illinois prisoners.

1945: Manhattan Project injection of plutonium into three patients at Billings Hospital at University of Chicago.

1945: Malaria experiment on 800 prisoners in Atlanta.

1946: Opening of Nuremberg Doctors Trial by U.S. Military Tribunal.

1945: Japanese troops blow up the headquarters of Unit 731 in final days of Pacific war. Ishii orders 150 remaining "logs" (i.e., human beings) killed to cover

up their experimentation. Gen. Douglas MacArthur is named commander of the Allied powers in Japan.

1946: U.S. secret deal with Ishii and Unit 731 leaders cover up of germ warfare data based on human experimentation in exchange for immunity from war-crimes prosecution.

1946-1953: Atomic Energy Commission sponsored study conducted at the Fernald school in Massachusetts. Residents were fed Quaker Oats breakfast cereal containing radioactive tracers.

1946: Patients in VA hospitals are used as guinea pigs for medical experiments. In order to allay suspicions, the order is given to change the word "experiments" to "investigations" or "observations" whenever reporting a medical study performed in one of the nation's veteran's hospitals.

1947: Colonel E.E. Kirkpatrick of the U.S. Atomic Energy Commission issues a secret document (Document 07075001, January 8, 1947) stating that the agency will begin administering intravenous doses of radioactive substances to human subjects.

1947: The CIA begins its study of LSD as a potential weapon for use by American intelligence. Human subjects (both civilian and military) are used with and without their knowledge.

1947: Judgment at Nuremberg Doctors Trial sets forth "Permissible Medical Experiments" – i.e., the Nuremberg Code, which begins: "The voluntary consent of the human subject is absolutely essential."

1949: Intentional release of radiiodine 131 and xenon 133 over Hanford Washington in Atomic Energy Commission field study called "Green Run."

1949: Soviet Union's war crimes trial of Dr. Ishii's associates.

1949-1953: Atomic Energy Commission studies of mentally disabled school children fed radioactive isotopes at Fernald and Wrentham schools.

1940s-1950s: "psychic driving" and "mental departtnering" experiments conducted by Dr. Ewen Cameron, depriving patients of sleep, using massive ECT combined with psychoactive drugs such as, LSD. After his "treatments" patients were unable to function. In the 1950's Dr.Cameron's experiments were sponsored by the CIA.

1950: Dr. Joseph Stokes of the University of Pennsylvania infects 200 women prisoners with viral hepatitis.

1950: U.S. Army secretly used a Navy ship outside the Golden Gate to spray supposedly harmless bacteria over San Francisco and its outskirts. Eleven people were sickened by the germs, and one of them died.

1951-1960: University of Pennsylvania under contract with U.S. Army conducts psychopharmacological experiments on hundreds of Pennsylvania prisoners.

1952-1974: University of Pennsylvania dermatologist Dr. Albert Kligman conducts skin product experiments by the hundreds at Holmesburg Prison; "All I saw before me," he has said about his first visit to the prison, "were acres of skin."

1952: Henry Blauer injected with a fatal dose of mescaline at New York State Psychiatric Institute of Columbia University. U.S. Department of Defense, the sponsor, conspired to conceal evidence for 23 years.

1953 Newborn Daniel Burton rendered blind at Brooklyn Doctor's Hospital due to high oxygen study on RLF.

1953-1957: Oak Ridge-sponsored injection of uranium into eleven patients at Massachusetts General Hospital in Boston.

1953-1960: CIA brainwashing experiments with LSD at eighty institutions on hundreds of subjects in a project code named "MK-ULTRA."

1953-1970: U.S. Army experiments with LSD on soldiers at Fort Detrick, Md.

1954-1974: U.S. Army study of 2,300 Seventh-Day Adventist soldiers in 157 experiments code named "Operation Whitecoat."

1950s –1972: Mentally disabled children at Willowbrook School (NY) were deliberately infected with hepatitis in an attempt to find a vaccine. Participation in the study was a condition for admission to institution.

1956: Dr. Albert Sabin tests experimental polio vaccine on 133 prisoners in Ohio.

1958-1962: Spread of radioactive materials over Inupiat land in Point Hope, Alaska in Atomic Energy Commission field study code named "Project Chariot."

1962: Thalidomide withdrawn from the market after thousands of birth deformities blamed in part on misleading results of animal studies; the FDA thereafter

requires three phases of human clinical trials before a drug can be approved for the market.

1962 to 1966, a total of 33 pharmaceutical companies tested 153 experimental drugs at Holmesburg prison (PA) alone.

1962-1980 Pharmaceutical companies conduct phase I safety testing of drugs almost exclusively on prisoners for small cash payments.

1962: Injection of live cancer cells into 22 elderly patients at Jewish Chronic Disease Hospital in Brooklyn. Administration covered up, NYS licensing board placed the principal investigator on probation for one year. Two years later, American Cancer Society elected him Vice President.

1962: Stanley Milgram conducts obedience research at Yale University

1963: NIH supported researcher transplants chimpanzee kidney into human in failed experiment.

1963-1973: Dr. Carl Heller, a leading endocrinologist, conducts testicular irradiation experiments on prisoners in Oregon and Washington giving them \$5 a month and \$100 when they receive a vasectomy at the end of the trial.

1964: World Medical Association adopts Helsinki Declaration, asserting "The interests of science and society should never take precedence over the well being of the subject."

1965-1966: University of Pennsylvania under contract with Dow Chemical conducts dioxin experiments on prisoners at Holmesburg.

1966: Henry Beecher's article "Ethics and Clinical Research" in New England Journal of Medicine.

1966: U.S. Army introduces bacillus globigii into New York subway tunnels in field study.

1966: NIH Office for Protection of Research Subjects ("OPRR") created and issues Policies for the Protection of Human Subjects calling for establishment of independent review bodies later known as Institutional Review Boards.

1967: British physician M.H. Pappworth publishes "Human Guinea Pigs," advising "No doctor has the right to choose martyrs for science or for the general good."

1969: Judge Sam Steinfield's eloquent dissent in *Strunk v. Strunk*, 445 S.W.2d 145, the first judicial suggestion that the Nuremberg Code should influence American jurisprudence.

1969. Milledgeville Georgia, investigational drugs tested on mentally disabled children. No institutional approval.

1969: San Antonio Contraceptive Study conducted on 70 poor Mexican-American women. Half received oral contraceptives the other placebo. No informed consent.

1973 Ad Hoc Advisory Panel issues Final Report of Tuskegee Syphilis Study, concluding "Society can no longer afford to leave the balancing of individual rights against scientific progress to the scientific community."

1974: National Research Act establishes National Commission for the Protection of Human subjects and requires Public Health Service to promulgate regulations for the protection of human subjects.

1975: The Department of Health, Education and Welfare (DHEW) raised NIH's

1966 Policies for the Protection of Human subjects to regulatory status. Title 45 of the Code of Federal Regulations, known as "The Common Rule," requires the appointment and utilization of institutional review boards (IRBs).

1976: National Urban League holds National Conference on Human Experimentation, announcing "We don't want to kill science but we don't want science to kill, mangle and abuse us."

1978: Experimental Hepatitis B vaccine trials, conducted by the CDC, begin in New York, Los Angeles and San Francisco. Ads for research subjects specifically ask for promiscuous homosexual men.

1979: National Commission issues Belmont Report setting forth three basic ethical principles: respect for persons, beneficence, and justice.

1980: The FDA promulgates 21 CFR 50.44 prohibiting use of prisoners as subjects in clinical trials shifting phase I testing by pharmaceutical companies to non-prison population.

1981: Leonard Whitlock suffers permanent brain damage after deep diving experiment at Duke University.

1986: Congressional subcommittee holds one-day hearing in Washington, called by Rep. Pat Williams of Montana, aimed at determining whether U.S. prisoners of war in Manchuria were victims of germ-warfare experimentation. Hearing is inconclusive.

1981-1996: Protocol 126 at Fred Hutchinson Cancer Center in Seattle.

1987: Supreme Court decision in United States v. Stanley, 483 U.S. 669, holding soldier given LSD without his consent could not sue U.S. Army for damages.

1987: "L-dopa challenge and relapse" experiment conducted on 28 U.S. veterans who were subjected to psychotic relapse for study purposes at the Bronx VA.

1990: The FDA grants Department of Defense waiver of Nuremberg Code for use of unapproved drugs and vaccines in Desert Shield.

1991: World Health Organization announces CIOMS Guidelines which set forth four ethical principles: respect for persons, beneficence, nonmaleficence and justice.

1991: Tony LaMadrid commits suicide after participating in study on relapse of schizophrenics withdrawn from medication at UCLA.

1993: Kathryn Hamilton dies 44 days after participating in breast cancer experiment at Fred Hutchinson Cancer Center in Seattle.

1994. The Albuquerque Tribune publicizes 1940s experiments involving plutonium injection of human research subjects and secret radiation experiments. Indigent patients and mentally retarded children were deceived about the nature of their treatment.

1994. President Clinton appoints the Advisory Commission on Human Radiation Experiments (ACHRE) The ACHRE Report
<http://tis.eh.doe.gov/ohre/roadmap/achre/index.html>

1995. U.S. Department of Energy (DOE) published Human Radiation Experiments, listing 150 plus an additional 275 radiation experiments conducted by DOE and the Atomic Energy Commission, during the 1940s-1970s.
http://tis.eh.doe.gov/ohre/roadmap/experiments/0491doca.html#0491_List

1995: 19-year-old University of Rochester student Nicole Wan dies after being paid \$150 to participate in MIT-sponsored experiment to test airborne pollutant chemicals.

1995. President Clinton appoints the National Bioethics Advisory Commission.

1995: NYS Supreme Court rules (TD v NYS Office of Mental Health) against the state's policy of conducting nontherapeutic experiments on mentally incapacitated persons - including children - without informed consent. Justice Edward Greenfield ruled that parents have no authority to volunteer their children:

"Parents may be free to make martyrs of themselves, but it does not follow that they may make martyrs of their children."

1995: Thirty-four healthy, previously non-aggressive New York City minority children, boys aged 6 to 11 years old, were exposed to fenfluramine in a nontherapeutic experiment at the New York State Psychiatric Institute. The children were exposed to this neurotoxic drug to record their neurochemical response in an effort to prove a speculative theory linking aggression to a biological marker.

1996. Cleveland Plain Dealer investigative report series, 'Drug Trials: Do People Know the Truth About Experiments,' December 15 to 18, 1996. The Plain-Dealer found: of the "4,154 FDA inspections of researchers testing new drugs on people [since 1977] . . . more than half the researchers were cited by FDA inspectors for failing to clearly disclose the experimental nature of their work."

1996: Yale University researchers publish findings of experiment that subjected 18 stable schizophrenia patients to psychotic relapse in an amphetamine provocation experiment at West Haven VA.

1997. President Clinton issues a formal apology to the subjects of the Tuskegee syphilis experiments. NBAC continues investigation into genetics, consent, privacy, and research on persons with mental disorders.

1997. Researchers at the University of Cincinnati publish findings of experiment attempting to create a "psychosis model" on human beings at the Cincinnati VA. Sixteen patients, experiencing a first episode schizophrenia, were subjected to repeated provocation with amphetamine. The stated purpose was to produce "behavioral sensitization. This process serves as a model for the development of psychosis, but has been little studied in humans. Symptoms, such as severity of psychosis and eye-blink rates, were measured hourly for 5 hours."

1997. U.S. government sponsored placebo-controlled experiment withholds treatment from HIV infected, pregnant African women. NY Times, Sept. 18.

1997. Victims of unethical research at major U.S. medical centers - including the NIMH - testify before the National Bioethics Advisory Commission, Sept. 18.

1997. FDA Modernization Act gives pharmaceutical companies a huge financial incentive - a 6 month patent exclusivity extension - if they conduct drug tests on children. The incentive can yield \$900 million.

1998. National Bioethics Advisory Commission (NBAC) Report. Research Involving Subjects with Mental Disorders That May Affect Decisionmaking Capacity. November 12, 1998
<http://bioethics.georgetown.edu/nbac/capacity/TOC.htm>

1998: The Japanese government has never formally apologized for Unit 731's activities, and did not even admit to its existence until August 1998, when the Supreme Court ruled that the existence of the unit was accepted in academic circles.

1998. Complaint filed with OPRR about experiments that exposed non-violent children in New York City to fenfluramine to find a predisposition to violence.

1998: Boston Globe (four part) series, "[Doing Harm: Research on the Mentally III](#)" shed light on the mistreatment and exploitation of schizophrenia patients who have been subjected to relapse producing procedures in unethical experiments.

1999: Nine month-old Gage Stevens dies at Children's Hospital in Pittsburgh during participation in Propulsid clinical trial for infant acid reflux.

1999: 18-year-old Jesse Gelsinger dies after being injected with 37 trillion particles of adenovirus in gene therapy experiment at University of Pennsylvania.

1999: Director of National Institute of Mental Health suspends 29 clinical trials that failed to meet either ethical or scientific standards.

2000: University of Oklahoma melanoma trial halted for failure to follow government regulations and protocol.

2000: OPRR becomes Office of Human Research Protection ("OHRP") and made part of the Department of Health and Human Services.

2000: President Clinton implement the Energy Employees Occupational Illness Compensation Act of 2000, which authorized compensation for thousands of Department of Energy workers who sacrificed their health in building the nation's nuclear defenses.

2000: The Washington Post (6 part) series, "Body Hunters" exposes unethical exploitation in experiments conducted by U.S. investigators in underdeveloped countries. Part 4 dealt with U.S. government funded, genetic experiments conducted by Harvard University in rural China.

<http://www.washingtonpost.com/wp-dyn/articles/A26797-2000Dec19.html>

2001: A biotech company in Pennsylvania asks the FDA for permission to conduct placebo trials on infants in Latin America born with serious lung disease though such tests would be illegal in U.S.

2001: Ellen Roche, a healthy 27-year old volunteer, dies in challenge study at Johns Hopkins University in Baltimore, Maryland.

2001: April 4, Elaine Holden-Able, a healthy retired nurse, consumed a glass of orange juice that had been mixed with a dietary supplement for the sake of medical research. This Case Western University Alzheimer's experiment, financed by the tobacco industry, wound up killing her in what was called a "tragic human error." Federal Office of Human Research Protections did not interview hospital staff, mostly accepted hospital's internal report, imposed no penalty, and closed the case and did not mention the death in its letter of determination. http://ohrp.osophs.dhhs.gov/detrm_lettrs/nov01f.pdf

2001: Maryland Court of Appeals renders a landmark decision affirming "best interest of the individual child" as a standard for medical research involving children. The Court unequivocally prohibited nontherapeutic experimentation on children. (Higgins and Grimes v. Kennedy Krieger Institute). The case involved exposure of babies and small children to lead poisoning in EPA funded experiment. (<http://www.courts.state.md.us/opinions/coa/2001/128a00.pdf>)